



Digital Business Convergence and Emerging Contested Fields: A Conceptual Framework

DongBack Seo

ChungBuk National University

dongbackseo@gmail.com

Abstract:

Due to innovations in digital technologies, organizations that used to practice their business in discrete industries now confront radically transformed environments with new competitors from other industries. To understand this phenomenon of digital business convergence, I adopt the theory of strategic action fields from the literature on social movements and organizations. I use elements of this theory to analyze the actions of organizations in contested fields instead of taking a vertical, horizontal, or single-industry perspective. Specifically, I look at how organizations use different types of mobilizabilities (political, social, and technological) to influence the emergence and evolution of contested fields. This paper raises research questions about digital business convergence, suggests ways to investigate those questions, and provides a conceptual framework to study organizations' strategies and behaviors from a strategic action field perspective.

Keywords: Digital Business Convergence, Strategic Action Fields, Mobilizability, Technology Innovation.

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1 Introduction

Digital technologies are shaking up traditional industry boundaries. For example, some mobile operators (e.g., KPN, a Dutch provider) around the world are losing their dominant market positions due to alternative services provided by competitors from other industries, such as Skype. A customer who has a mobile phone with the Skype application can make phone calls through a WiFi network instead of the cellular network that mobile operators provide. Conversely, some mobile operators have been able to strengthen their market position by providing a mobile platform for customers and content providers. For example, since the introduction of i-mode, NTT DoCoMo, the largest mobile operator in Japan, has been able to sustain its dominant position in part by expanding its core business into banking and financial areas. Its enhanced platform allows customers to use their mobile phones as debit and credit cards (Bielski, 2007) and to perform basic banking transaction such as transferring and remitting money by simply inputting the receiver's mobile number (NTT DoCoMo, 2009). In doing so, NTT DoCoMo has changed its value proposition from simply providing a cellular network to offering content aggregation and other value-added services such as billing and banking.

Other organizations are going through similar changes. Banks such as Sanpaolo Bank in Italy and Rabobank in the Netherlands are becoming telecommunications operators. Software companies such as Google and Paypal and mobile operators such as A1 Telekom Austria and SK Telecom in Korea have acquired banking licenses (Husson, 2011). Some organizations have expanded services to reinforce their existing core business: Sanpaolo Bank, for example, has branched out in order to provide more services to strengthen its position as a financial services provider. Other organizations have decided to reconceptualize their core business entirely. NTT DoCoMo, for example, has shifted from being a cellular network provider to a communications culture creator (NTT DoCoMo, 2015).

All of these cases illustrate the fact that organizations are increasingly moving beyond their traditional industry boundaries and offering products and services that put them in direct competition with organizations in other industries. Organizations that face this phenomenon are struggling to make sense of the competitive landscape. They are trying to set up strategies to manage their capabilities so that they can seize opportunities in the emerging market while still holding on to their existing positions (The Economist, 2006).

This phenomenon differs from traditional business expansion. When an organization expands its products or services into another industry, it needs resources similar to incumbents in that industry in order to compete against them and operate under the regulations and rules of that industry. However, in this phenomenon, organizations from different industries are competing against each other with different resources and operating under different regulations and rules. For example, Verizon competes with other telecommunications companies (e.g., AT&T) that have similar resources (e.g., physical networks) and the same telecommunication regulations. At the same time, however, Verizon also competes with WhatsApp and Skype, software companies that have different resources and are not bound by telecommunication regulations. In this paper, I call this phenomenon "digital business convergence".

This situation raises significant questions for scholars and practitioners. How can we analyze the phenomenon of digital business convergence when traditional theories are built on an assumption of stable industry boundaries? How do we identify the potential customers, competitors, and cooperators of an organization in this quickly changing landscape? To address these questions, I draw on the theory of strategic action fields, which comes from studies on social movements and organizations (King & Pearce, 2010; Schneiberg & Lounsbury, 2008). A "strategic action field" (SAF) is a basic unit of collective action, a social order where actors (individual or collective) interact with each other under a set of common understandings about the field's rules and purposes (Fligstein & McAdam, 2011). I adapt this theory to analyze how organizations, as actors, interact with each other in digital business convergence.

Specifically, I look at how organizations display institutional entrepreneurship by leveraging resources to influence the SAFs of digital business convergence (Maguire, Hardy & Lawrence, 2004). I propose that the activities of organizations to mobilize other organizations are key drivers in shaping SAFs (Fligstein & McAdam, 2011; Lawrence, Hardy, & Phillips, 2002) and that, in order to do so, they draw on three different types of mobilizabilities: political, social, and technological mobilizabilities. I coin this term "mobilizability" to refer to an organization's capability to actively organize dispersed actors across industries in a dynamic environment. Political mobilizability refers to an organization's capability to leverage legal instruments and enforcement mechanisms to influence others (Garud, Jain, & Kumaraswamy, 2002). Social mobilizability refers to an organization's capability to understand the context of other actors and to provide those actors with common "meanings and identities in which actions can be undertaken and justified" together (Fligstein,

1997, p. 397). In addition to these two types, which one can find in the sociological literature on strategic action fields, I add a third: technological mobilizability. Technological mobilizability refers to an organization's capability to leverage technological skills (software or hardware) or an aspect of a technological environment to influence other actors. Although researchers of institutional entrepreneurship have recognized the significance of technologies (e.g., Garud et al., 2002; Munir & Phillips, 2005), they have failed to acknowledge the role of technological mobilizability. Since the development of digital technologies is essential in digital business convergence, technological mobilizability is critical.

This paper proceeds as follows: in Section 2, I provide background information on digital technology development and digital business convergence. In Section 3, I discuss issues and challenges in the research on digital business convergence. In Section 4, I review relevant literature and theoretically explain the phenomenon of digital business convergence based on the theory of strategic action fields. In Section 5, I present a conceptual framework and implications with propositions. Finally, in Section 6, I conclude the paper.

2 Background

2.1 Digital Technology Leads to Digital Business Convergence

One can view digital technology as having four layers (Yoo, Hendridsson, & Lyytinen, 2010): device, network, service, and content. The device layer comprises physical and logical parts. Physical parts include machinery (e.g., computer hardware), and logical parts provide control of the physical parts and connections to other layers. The network layer also comprises physical and logical parts. Physical parts in this layer refer to things such as optical fiber cables, satellites, and radio waves, which govern access to and use of the media. Logical parts include standardized protocols, such as the Internet Protocol (IP), IEEE 802.11x, CDMA, and LTE. The service layer comprises application functionality such as accessing, creating, storing, and manipulating content. The content layer contains various forms of data such as texts, sounds, games, and movies.

Before the development of digital technology, products and services were tightly coupled with specific devices, networks, and infrastructures. For example, content (e.g., movies and TV programs) was tightly coupled with cable or public broadcasting infrastructure and devices (e.g., televisions) (Seo & Sherif, 2009). A banking service was tightly coupled with a particular banking infrastructure, so customers needed to be physically present at the bank or at designated automated teller machines (ATMs) to access banking services.

However, these layers have started to become de-coupled, a process that three characteristics of digital technology that differ from other technologies have expedited: reprogrammability, homogenization of data, and a self-referential nature (Yoo et al., 2010). Reprogrammability enables a digital device to be a physical container that carries various content and services (e.g., a smart phone that can download and delete applications) instead of a single container tightly coupled with a pre-defined and fixed set of content and services (e.g., a voice-only mobile phone). The homogenization of data means that digital devices can transmit over digital networks, process, and store any type of content (text, image, video, and audio) once digitized into binary numbers. Finally, a self-referential nature means that the innovation of digital technology requires more use of digital technology, which stimulates positive network externalities (Yoo et al., 2010).

De-coupling between layers has significant impact on organizations. Content providers can provide their content—whether TV programs, movies, documents, banking services, or games—through multiple networks. For instance, NTT DoCoMo can provide not only a voice delivery service but also any content and service that can be digitized, packaged, and delivered through its mobile infrastructure. As a result, heterogeneous network providers such as landline telecommunications, cable TV, and mobile communications operators must now both compete against and cooperate with each other. At the same time, device manufacturers for home electronics, computers, and mobile handsets now need to develop devices that can serve multiple functions and that will eventually both compete against and work with each other. Moreover, bankers, credit card providers, mobile telecommunications operators, and software developers compete in providing transactional services through software as a service (SaaS). When these organizations provide software applications such as one that provides a bookkeeping function for individuals and small and medium-sized enterprises, it impacts accounting firms and their core business. Thus, the development of digital technology provides a condition for re-combining and re-assembling various components in different layers.

Digital technology allows organizations to move beyond their traditional industry boundaries and offer products and services without the type and level of resources usually required for business expansion. For

example, a telecom company (e.g., AT&T) that wants to expand its business to cable TV, content provision, and even banking services would usually require resources in those areas in order to become a conglomerate. However, digital technology enables a telecom company (e.g., SK Telecom and NTT DoCoMo) to deliver services including TV programs and banking services as long as they can be digitized. Consequently, many organizations are going beyond their traditional market boundaries and challenging other organizations that they did not previously compete with. However, organizations are still affected by regulations and rules in their traditional industries and, thus, compete against each unevenly in this emerging field as in the case of competition between telecom companies and Skype. As I exemplify above, the development of digital technology leads to the phenomenon of digital business convergence.

This phenomenon is observed in many industries from information technologies, telecommunications, consumer electronics, and entertainment (ITTCE) to banking and accounting. For example, people use services from Paypal or mobile operators to conduct financial transactions that banking or credit companies have traditionally provided even though Paypal and mobile operators are not bound to follow the regulations and rules of the financial industry. People in some countries (e.g., South Korea) do not need to go through an accountant to fill out complicated tax filing applications because their banks and mobile operators now link their expenses to the governmental taxation office. Notably, unexpected organizations are continuously innovating and generating these new or substitutable products and services. Therefore, organizations from different industries inevitably find themselves both cooperating with and competing against each other to develop and deliver new or substitutable goods.

3 Issues and Challenges in Researching Digital Business Convergence

Researchers have developed many business models and management theories based on an assumption of stable and fixed industry boundaries (Yoo, 2013). For example, researchers have used one of the most well-known business models, Porter's five forces, to analyze organizational competitive environments for business strategy development (Porter, 2008). Although this model works well in a situation of stable and fixed industry boundaries, it becomes difficult to apply this model to identify the threat of new entrants, threat of substitute products or services, and intensity of competitive rivalry in the phenomenon of digital business convergence. For instance, should Vodafone (a British multinational telecom operator) consider Skype as its rival even though it does not have the same license nor is it affected by the same regulations (e.g., taxation) as Vodafone?

Since Lyytinen and Yoo (2002) identified digital technology as one of the drivers for a nomadic information environment and provided IS scholars research topics in this area, scholars have studied issues such as users' privacy and advanced mobile service adoption (e.g., Constantiou, Damsgaard, & Knutsen, 2007; Xu, Teo, Tan, & Agarwal, 2009). However, these studies mostly focus on the impact of a specific technology at the individual, team, and organizational levels. We lack research on the organizational level, especially for issues relevant to organizational strategies and behaviors from a field or industry perspective. The complexity of coordination and business transactions among organizations has intensified in the phenomenon of digital business convergence (Lyytinen & Yoo, 2002). More scholars have acknowledged the complexity and potential socio-economic impact of digital business convergence and suggested potential research agendas (e.g., Bichler, Gupta, & Ketter, 2010; El Sawy, Malhotra, Park, & Pavlou, 2010; Tilson, Lyytinen, & Sorensen, 2010; Yoo et al., 2010).

Extant works on digital business convergence, mostly from the legal and technology areas, offer contradictory perspectives (Srivastava & Finger, 2006). One stream of this research examines the disintegration and transformation of vertical value chains into horizontal value chains as a result of digital business convergence based mostly on cases in the computer industry (e.g., Mueller, 1999; Yoffie, 1996). Here, a vertical value chain refers to how an organization conducts most of its activities in the value chain through its own business units or sister organizations. A horizontal value chain, on the other hand, refers to a network of activities that various independent organizations perform and that no one organization controls. These scholars (e.g., Mueller, 1999; Yoffie, 1996) argue that digital products and services require various complementary products and that one organization cannot possibly provide everything necessary for a complete digital product. Therefore, they claim that organizations need to build a horizontal value chain that can contribute to a complete product and that they can gain economies of scale and scope through technology standardization. These scholars (e.g., Benkler, 2006; Lessig, 2008) warn that the movements of reinforcing market-based, proprietary models such as expanding copyright, trademark, and software patents are likely to be obstacles to information, knowledge, cultural innovation, production, and development.

On the other hand, another stream of research suggests a movement from a distributed horizontal structure toward an integrated vertical value chain rooted in examples in the telecommunications and broadcasting industries (e.g., Blackman, 1998; Rangone & Turconi, 2003). Here, scholars argue that organizations can maximize their competitive advantage across the value chain through vertical integration and gain expertise and resources to deliver new information services between telecommunications and other media (Blackman, 1998; Rangone & Turconi, 2003).

One reason for these contradictory perspectives is that researchers are taking the perspective of a single industry when, in fact, traditional industry boundaries are shaking. It means that they have not fully considered the true complexity of digital business convergence, which leads to the first issue in analyzing the dynamic boundaries of emerging fields: which industry should be considered?

One cannot apply business models and management theories that researchers have developed based on the assumption of stable and fixed industry boundaries in order to explain the phenomenon of digital business convergence. Organizations from different industries with different types of resources cooperate and compete against each other and are affected by the different regulations and rules of their various industries. Therefore, the second issue concerns how these organizations can be innovative in digital business convergence when they are conditioned by the business practices, regulations, and rules of their industries.

These issues are also challenges for practitioners and scholars when they endeavor to analyze digital business convergence. Because of its rapidly developing and disruptive nature, it is not possible to list every organization and industry that is and will be involved in this phenomenon, nor is it possible to predict how fields will emerge. However, I suggest a theoretical framework to investigate these issues in Section 4.

4 Theoretical Development

Imagine that soccer, field hockey, basketball, and handball players are in one big arena to play together. They operate with the following rules. First, they can use skills and sports gear from their sport, but they can also develop new skills and sports gear if necessary. Second, they must follow the rules from their own sport. For example, soccer players cannot touch a ball with their arms and hands. Third, each team can only score goals in the way that they do in their own sport. Fourth, no one knows what kind of ball they will have to use, and the ball can also change during the game. Fifth, there are multiple teams instead of two teams, and players are free to form teams with whomever they want. Furthermore, players can change teams during a game. This scenario roughly represents the phenomenon of digital business convergence. It is clear that there could be more than a few arguments not only in playing the game but also even in talking about it.

Instead of taking a vertical, horizontal, or single industry perspective, we can consider how fields emerge in the phenomenon of digital business convergence—similar to how teams can form and change in the above scenario. The theory of strategic action fields offers a way to understand the evolving phenomenon of digital business convergence. As I mention above, I adapt this theory from the literature on social movements and organizations. Since the theory focuses on collective strategic actions (Fligstein & McAdam, 2011; Fligstein & McAdam, 2012), it provides a way to understand how organizations act to influence the emergence and evolution of fields in ways that give them strategic advantages in the phenomenon of digital business convergence.

Actors can simultaneously participate in multiple SAFs. For example, a telecom company's cooperating with other telecom companies to lobby lawmakers constitutes one SAF. At the same time, the telecom company may cooperate with its partners (e.g., content providers and handset manufacturers) to form a value chain that competes against other telecom companies. One can view each value chain formed by different telecom companies as a field. These fields are subsets of the larger SAF of the overall telecom market.

The theory of strategic action fields is relevant to analyzing digital business convergence for several reasons. First, the concept of multiple fields and relationships between fields provides a way to analyze multiple types of relationships in a way not bound by industry definitions. Second, the theory of SAFs focuses on who gets what (Fligstein & McAdam, 2011), which is what we are interested in examining in digital business convergence: who is leading and who is following at any given point in time. Thus, it is appropriate to adopt the theory of strategic action fields to this research.

Table 1 shows seven central elements of the theory of SAFs.

Table 1. Central Elements of the Theory of SAFs (Fligstein & McAdam, 2011)

Element	Definition
Strategic action fields	A social community where actors (individual or collective) interact with each other under a set of common understandings about the relationships in the field and its rules and purposes.
Broader field environment	The scholars of SAFs point out the importance of the broader environment in which SAFs are embedded and suggest three sets of binary distinctions: 1) distant versus proximate, 2) vertical versus horizontal, and 3) state versus non-state.
Incumbents, challengers, and government units	Incumbents have disproportionate influence in a field and challengers have little influence. Government units are charged with overseeing compliance with field rules to facilitate the smooth functioning of the system.
Exogenous shocks, field ruptures, and the onset of contention	Exogenous shocks mean significant changes from outside of a field, which is a threat to its stability. The onset of contention refers to innovative action based on organizational evaluation of the collective construction of threat or opportunity.
Social skill	Individual or collective actors' cognitive capacity for reading people and environments to plan actions and then mobilize people to take those actions.
Episodes of contention	An episode of contention is a period where actors use new and innovative actions to interact in conflict.
Settlement	Settlement implies that a general sense of order and certainty returns to a field after it has been in crisis.

By defining and discussing these central elements of the theory of SAFs in relation to digital business convergence, one can make specific aspects of the overall phenomenon visible. First, the concept of strategic action fields allows one to go beyond the industry-oriented perspective in the extant literature and take into account the dynamic characteristic of field boundaries. Since the phenomenon of digital business convergence challenges traditional industry boundaries, organizations need to reconsider, reconfigure, and restructure their contested fields. A traditional industry has a stable and fixed boundary under the same regulations. In this given contested field, organizations are used to compete and collaborate with others for similar products and services (Wooten & Hoffman, 2008). Therefore, redefining, reconfiguring, and restructuring these contested fields becomes significant for organizations to identify their potential customers, collaborators, and competitors in the phenomenon of digital business convergence, which is relevant to the issue of identifying which industry and organization the phenomenon involves.

Second, the concept of the “broader field environment” allows one to analyze how organizations move beyond their industry-oriented fields and reach even distant fields by using digital technologies.

Identifying incumbents, challengers, and government units depends on the type of field that one analyzes. In the case where we speak of a pre-existing industry as a field, we can talk about its incumbents, challengers, and relevant government units. In the case of emerging fields in digital business convergence, it is more difficult to say who the incumbents are. When organizations across industries compete in new fields, one can consider them all as challengers in some sense even though they may consider themselves to be incumbents. As challengers, organizations interact and struggle with each other to formulate a set of common understandings in the *emerging contested field*.

4.1 Digital Technologies as Shocks to Rupture Fields

Digital technologies have continuously evolved—often in “wakes of innovations” (Boland, Lyytinen, & Yoo, 2007). That is, the development of one technology often paves the way for subsequent innovations in different domains. For example, the Internet has become a platform for services such as voice over Internet protocol (VoIP) and Internet protocol television (IPTV). VoIP combined with mobile technology produces new services that threaten the business model of mobile voice operators. Apple’s iOS, which is based on one of the most popular operating systems, UNIX, has produced unprecedented waves of innovations in diverse domains combined with innovations in hardware, communications, and sensors. These continuous innovations spurred by digital technologies have led some scholars to propose the notion of unbounded innovation as one important characteristic of digital innovation (Yoo, Boland, Lyytinen, & Majchrzak, 2012).

One could consider technology innovations as exogenous shocks as identified in the theory of SAFs, but one could also consider as endogenous shocks. Past research on innovation assumes that technology innovation is an exogenous factor that happens once in a while and disrupts existing orders (Lavie, 2006). However, technology innovations can arise from members in a given field, especially if one considers a large field with many subfields in the phenomenon of digital business convergence. Therefore, technology innovations could be seen as endogenous events in one field and exogenous shocks in other fields. Since I do not focus on identifying whether technology innovations are exogenous or endogenous shocks in this paper, I simply consider technology innovations as shocks that rupture field orders and rules. Emerging fields in digital business convergence are dynamic with constant shocks (digital technology innovations).

These shocks can lead to field ruptures and onset of contention. For instance, the initial technology innovation of 3D representations stimulated multiple innovations that generated new knowledge, technologies, and practices (Boland et al., 2007). The surviving organizations were not obliged to follow existing orders and rules, so they acted innovatively to take advantage of the situation. In emerging contested fields, organizations from various discrete industries can take actions to construct or transform field orders and rules to advance their interests. The multiplicity, ambiguity, and even contradictory nature of industry-oriented fields' orders, regulations, and rules create opportunities for organizations to mobilize others with technology innovations in one or more fields, which is especially true for those that could not participate in forming the recent fields' orders to have opportunities (Lawrence et al., 2002; Munir & Phillips, 2005).

One can apply "social skill" to the phenomenon of digital business convergence to refer to organizations' capacity to gain support for influencing on the emergence of new fields or the evolution of existing fields (Fligstein & McAdam, 2011; Fligstein & McAdam, 2012). Organizations that want to exercise institutional entrepreneurship and mobilize collective actions must have social skill (Dorado, 2005; Wijen & Ansari, 2006) even though the actions of those multiple organizations can effect unintended and unexpected consequences (Davis, McAdam, Scott, & Zald, 2005; Rao, Morrill, & Zald, 2000; Rao, Monin, & Durand, 2003).

Since a field does not emerge in a vacuum, organizations collectively try to influence the emergence of new fields. In this situation, organizations still use skills that they have learned from their conventional industries to mobilize others (Greif, 2006; Grewal & Dharwadkar, 2002). As a result, a potentially paradoxical situation can occur if organizations use the field orders, regulations, and rules of conventional industries to influence the emergence of new fields (Garud, Hardy, & Maguire, 2007). For this reason, understanding the field orders, regulations, and rules of industries can help one analyze organizations' strategies and behaviors in mobilizing others.

4.2 Mobilizability

Hargrave and Van de Ven (2006) draw on the idea of collective action to explain the phenomenon of institutional creation and change. Building on the idea that collective actions are necessary to influence on the emergence and evolution of fields, I focus on determining who can mobilize collective action. It is not about who invented a technology and business model first but who can first build new fields and field orders and rules in a field by actively mobilizing others. Mobilization is a significant factor for organizations in influencing fields for their own advantage (Fligstein & McAdam, 2011; Fligstein & McAdam, 2012). Mobilizability refers to organizations' ability to actively organize or influence other organizations on the emergence and evolution of fields and the field orders and rules in a field (Purdy & Gray, 2009).

In the phenomenon of digital business convergence, one organization could not mobilize and maneuver exactly the way that it envisions. An organization needs to compromise and negotiate with others through collective action in order to influence on the emergence and evolution a field. It is important to identify and understand those organizations that can actively mobilize and initiate collective actions because their strategies and behaviors influence the emergence and evolution of fields, field orders, and rules in a field. On the surface, mobilizability seems related to dynamic capability in that both concepts emphasize an organization's ability to address rapidly changing environments (Teece, Pisano, & Shuen, 1997). However, they differ in a significant way. While dynamic capability focuses on learning in order to produce new capabilities and competencies, mobilizability emphasizes unlearning inherited practices from industry-oriented fields to dynamically collaborate with other actors across industries in order to influence on the emergence and evolution of fields. Actors include not only companies but also customers, governments, consortiums (e.g., technology standard-setting consortiums) and other individuals and groups. Thus, a significant question concerns which actor can mobilize to influence the emergence of more attractive fields for other actors to join.

As I mention above, organizations that have institutional entrepreneurship are likely to take innovative actions in influencing on the emergence and evolution of SAFs by mobilizing other organizations (Maguire et al., 2004). Institutional entrepreneurship refers to activities that leverage resources to influence the emergence and evolution of SAFs and to form rules and orders in particular SAFs (Maguire et al., 2004). Thus, one might ask what kinds of mobilizabilities these organizations need.

An organization needs to initiate three vital ingredients or so-called pillars (i.e., regulative, normative, and cultural-cognitive) for actors to interact with each other (Scott, 2008). The regulative pillar can constrain and regulate actors (DiMaggio & Powell, 1983; North, 1990). The normative pillar suggests values (conceptions of preferable and desirable behaviors) to establish norms (how things should be done) (March & Olsen, 1989; Stinchcombe, 1997). The cultural-cognitive pillar comprises "the shared conceptions that constitute the nature of social reality and the frames through which meaning is made" (Scott, 2008, p. 57). The cultural-cognitive pillar refers to an internal cognitive interpretation process of human beings shaped by external cultural frameworks (DiMaggio & Powell, 1983; Meyer & Rowan, 1977; Scott, 2008). The normative pillar rests on social obligation, while the cultural-cognitive pillar rests on preconscious, taken-for-granted understandings (Scott, 2008). One pillar can dominate and overwhelm other pillars depending on the situation (Scott, 2008).

These three pillars hint at what kind of mobilization organizations tend to use (Grewal & Dharwadkar, 2002). First, to initiate the regulative pillar, organizations need to signify rules or laws to convince others to take collective action, which is referred to as political mobilizability. For example, organizations in the movie, cable, and music industries (e.g., the Motion Picture Association of America and the Recording Industry Association of America) recently used their legal abilities to establish regulations such as the Stop Online Piracy Act (SOPA) and Protect IP Act (PIPA). Both acts have not been successful so far. Moreover, political mobilizability includes any kind of formal or informal strong-arm tactics to sustain a coalition or to keep diverging interests in balance (Garud et al., 2002), so this mobilizability also invokes and reinforces normative and cultural-cognitive pillars tactically or from a position of power. For instance, the Dutch telecommunications service provider KPN forced its customers to pay extra in order to access VoIP and instant messaging by using its position of power. Vodafone also joined in this mobilization in 2011 (Preuschat, 2011). This news outraged consumer groups, which mobilized to pressure the Dutch Government to block this policy. Eventually, the Dutch Government enacted a network neutrality law in 2012 (Higgins, 2012).

Second, organizations need social mobilizability to signify common meanings and identities (e.g., business goals, values, and models) that others can join in order to initiate the normative pillar and the cultural-cognitive pillar. Common meanings and identities that an organization provides become orthodox and taken-for-granted scripts for actions when continually practiced by actors. For example, Apple proposed a new way of distributing music to music-producing organizations (Isaacson, 2011). The music industry broadly expressed concern about music piracy at the time, but the business value that Apple suggested was convincing enough to mobilize them in establishing a new norm of distributing music through digital networks (Isaacson, 2011). Distributing music through the Internet has since become a taken-for-granted frame for the music industry. Other examples of social mobilizabilities are common sentiment and sense of crisis. Organizations form a group such as a technology standard-setting organization (e.g., Open Mobile Alliance) based on a common sentiment (e.g., mobile device manufacturers) to leverage social mobility for collective actions. When organizations encounter a crisis such as a natural disaster or legislation of disadvantageous laws (e.g., net neutrality), they find a common meaning and identity as a group and cope with the crisis together even though they are competitors.

Third, in digital business convergence, the use of digital technologies can initiate all three pillars (regulative, normative, and cultural-cognitive). Using a certain digital technology (e.g., mobile Android operating system) forces people to do things in a particular way, which can stimulate the regulative pillar. Although a given digital technology prescribes people's behaviors, the prevalent usage of that technology establishes social obligations and mutual reinforcement. Furthermore, routine usage of the technology can cause people to regard it as taken for granted and create recognizable cultures such as downloading music and taking pictures using a smart phone (Kim & Malhotra, 2005; Kim, Malhotra, & Narasimhan, 2005). Thus, the uses of digital technologies are important for an organization to mobilize others. For example, NTT DoCoMo and Apple have used their technological mobilizabilities to develop and provide the i-mode and iPhone platforms, respectively. These platforms drive organizations and customers to do business in a certain way. The more organizations and customers use these platforms, the more this way of doing business becomes inscribed as norms and taken-for-granted templates.

Just as each pillar can surpass, compete, or complement other pillars in supporting a field, one type of mobilization can compete against other types. For instance, although many organizations from the telecommunications industry have tried to standardize a mobile operating system through the Open Mobile Alliance (OMA) as a standard-setting organization, organizations from the computer and Internet industries (e.g., Apple and Google) released their mobile operating systems without going through any standard-setting organization. As a result, various mobile operating systems currently compete against each other in the market. Organizations from the telecommunications industry used their social mobilizability by suggesting a business value (e.g., having a standardized mobile operating system) to mobilize other companies (e.g., handset manufactures and service providers) as a collective action group even before developing the technology. Meanwhile, organizations from the computer and Internet industries used their technological mobilizability to attract customers and application developers as a collective action group. Therefore, each type of mobilization can conflict with but also complement other types of mobilizations in emerging and evolving fields.

Although scholars emphasize one or another of the mobilizations, it is important to consider all three mobilizations in influencing on the emergence and evolution of fields in the phenomenon of digital business convergence. Moreover, the need for mobilizability never ends because of the dynamic characteristic of emerging contested fields.

5 A Conceptual Framework and Implications

Organizations compete and negotiate to influence emerging and evolving contested fields (Smets, Morris, & Greenwood, 2012; Thornton, Ocasio, & Lounsbury, 2012). Considering the relationship between fields and involved actors, we see that:

1. The regulations and rules of pre-existing industry-oriented fields (where organizations came from) can constrain organizations in developing innovative actions
2. The rules and norms of pre-existing industry-oriented fields (where organizations came from) influence how they leverage their mobilizabilities (political, social, and technological), and
3. These mobilizabilities are critical in mobilizing other actors to influence on the emergence and evolution of fields (Garud et al., 2002; Wijen & Ansari, 2006).

In this sense, organizations that have been part of more than one industry or that have collaborated with actors across various industries will have an advantage, which is what the moderator of organization experience with other industries means in Figure 1. I suggest a conceptual framework to analyze organizations' strategies and behaviors and to explore what kind of organization can actively mobilize to influence on the emergence of a competitive field in the phenomenon of digital business convergence. Figure 1 provides the overall conceptual framework.

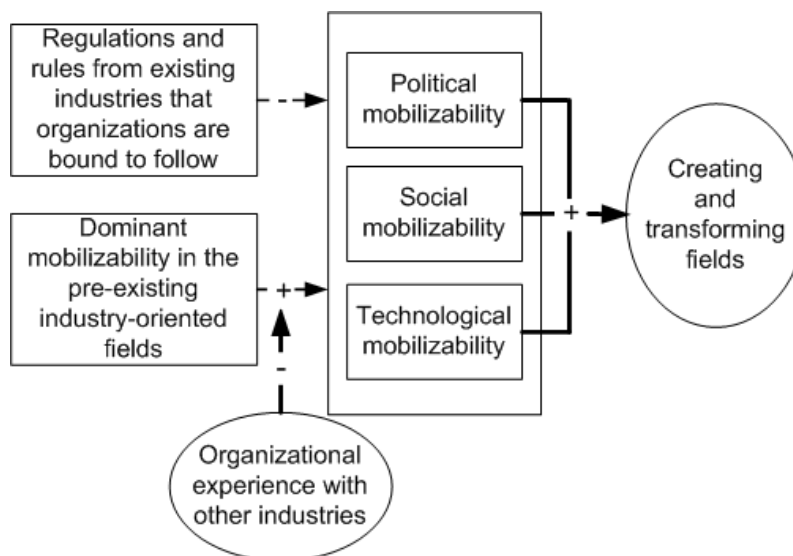


Figure 1. Conceptual Framework

5.1 Influence from Pre-existing Industries

Organizations under the influence of regulations and rules of pre-existing industries are less flexible in developing innovative actions to mobilize others. For example, Apple Pay, Android Pay, and Samsung Pay (mobile payments) can substitute for debit cards, but they are not subject to laws regarding payments unlike debit cards from financial institutions. Therefore, Apple, Google and Samsung can be more flexible in mobilizing others than financial institutions. Thus, I propose:

P1: The regulations and rules of pre-existing industries that organizations are bound to follow are negatively related to the mobilizabilities of those organizations.

An organization from an industry accustomed to leveraging political skills more than other skills to mobilize other actors in establishing field orders, rules, and norms tends to exercise political mobilizability (e.g., lobbying for new regulations) even though they also potentially have social and technological mobilizabilities. Among existing industries, organizations in content-producing industries such as the movie, cable, and music industries have tended to use political mobilization more than other mobilizations. For instance, the Walt Disney Company successfully lobbied to extend copyright terms in the United States by 20 years in 1988 (the so-called Mickey Mouse Protection Act). Through this regulation, organizations could reinforce their industry-oriented field orders, rules, and norms.

An organization from an industry accustomed to leveraging social skills more than other skills will tend to use social mobilizability. These actions include suggesting business goals and values in order to mobilize other actors in establishing field orders, rules, and norms. Among existing industries, organizations from the telecommunications and banking industries tend to use social mobilization earlier than other mobilizations. For instance, telecommunications organizations have suggested a vision for the next generation of the telecommunications market, such as fast and unlimited access to the Internet on mobile devices, to convince actors such as systems manufacturers, content providers, and customers to collaborate with them. Organizations from the banking industry have proposed potential new services, such as automatic bookkeeping services linked to customers' bank accounts, and tried to convince other actors such as accounting firms and small enterprises to collaborate with them.

Organizations from industries accustomed to leveraging technological skills more than other skills in order to mobilize other actors tend to use technological mobilizability. For instance, organizations develop information and communications technologies to provide a platform that others can easily adopt for their services and products. Since a technological platform provides certain functions and conditions, the platform can direct and routinize how business activities are practiced (Kim & Malhotra, 2005; Kim et al., 2005). As such, a platform provider can mobilize others through the platform to establish certain business routines. Among existing industries, organizations from the computer and Internet industries tend to use technological mobilization prior to other mobilizations. For example, Google has independently developed software goods (e.g., Google+) and released them with the hope that other actors (e.g., customers) would adopt it. Facebook provides people and organizations with a new way to approach and communicate with each other. The more people and organizations use Facebook, the more their usage becomes a part of their lives as a taken-for-granted routine. In this way, Facebook can mobilize people and organizations to establish field orders, rules, and norms. Google tried to do the same thing with Google+. Thus, I propose:

P2: The dominant mobilizability in a pre-existing industry-oriented field is positively related to an organization's selection and usage of that mobilizability in the phenomenon of digital business convergence.

5.2 Organizational Experience with Other Industries as a Moderator

From a conceptual framework, organizations with strong political, social, and technological mobilizabilities have the most promise of creating a field that can benefit them. However, no industry involved in digital business convergence has yet deployed a strong combination of all three types of mobilizations simultaneously, which suggests that organizations are heavily influenced by their pre-existing industry-oriented fields and are unlikely to maneuver all of the mobilizabilities at the same time.

However, this fact does not mean that there is no organization that has accessed or could access all three mobilizabilities. Potentially, organizations can move beyond their comfort zones and mobilize other actors across industries to create favorable field orders, rules, and norms. An organization's experience across various industries can moderate the influence of its industry-oriented practices on its mobilizabilities. Organizations that have been part of more than one industry tend to be more flexible. Consequently, these

organizations can ally with others to access the mobilizabilities that they do not have. This concept contradicts the idea that diversification is negatively related to an organization's performance (e.g., Hendricks & Singhal, 1997; Markides, 1995). Organizations that have been part of more than one industry tend to have better access to mobilizabilities than organizations that have belonged to only one industry. Thus, I propose:

- P3:** An organization's experience across industries moderates the pre-existing industry-oriented field's dominant mobilizability's influence on the mobilizabilities that it uses to influence emerging and evolving contested fields in the phenomenon of digital business convergence.

5.3 Combination of the Three Mobilizabilities

In the phenomenon of digital business convergence, organizations can find it difficult to establish a field by relying on just one type of mobilizability. First, organizations from various industries can compete against each other with different types of mobilizabilities in establishing field orders, rules, and norms. Second, considering the dynamics and complexity of digital business convergence, a mobilization based on one type (political, social, or technological mobilizability) is much more vulnerable than mobilization based on the combination of more than one type (Ozcan & Eisenhardt, 2009). For instance, Hulu.com—a joint venture by NBCUniversal Television Group, Fox Broadcasting Company and Disney-ABC Television Group—provides streaming services of current and past TV shows, movies, and other content through its Web platform. These companies from the content-providing industry have successfully mobilized customers and organizations from other industries, including Facebook and Yahoo, to promote the platform. While these companies provide a lot of content through their platforms, they strongly stand against unauthorized and illegal distribution of their content. This example illustrates the combination of political, social, and technological mobilizabilities.

By the very nature of digital technology-driven phenomena, maintaining business value requires mobilization of technological support. For example, in the case of Apple's proposition to music-producing organizations, the suggested business value was to use digital technologies to protect copyrights while distributing music online. Once Apple could mobilize music-producing organizations, it provided the iTunes platform to support the business value. This alignment between social (i.e., distributing music using digital technology) and technological (i.e., providing the iTunes platform for music distributors and customers to use) mobilizations made it possible for Apple to establish new norms and routines for distributing music. The more customers purchase and download music online, the more music-producing organizations must join this platform, which is related to the political mobilization that Apple can muster. An organization that can successfully propose this kind of eco-systematic business model based on its platform can access and gain social mobilizability by attracting actors from various industries and providing them with meanings and identities. After establishing a position of power, the organization can also maneuver its political mobilizability.

On the other hand, it is difficult to sustain mobilizations that are only based on a specific technology without any political or social mobilizability (e.g., patents and business models). Many innovative organizations from software, content, and application-development industries try to turn their goods (e.g., products, applications, services) into platforms. Although some do successfully become platforms, organizations can lose control over their platforms, which can cause them to become free highways that everybody can take advantage of. Even if some organizations can control their platforms, new platforms can replace them, which can easily occur due to a platform's characteristics—openness and generativity—and if there is no valuable and sustainable business model or (formal or informal) enforcement attached to those platforms that provide participating actors with meanings and identities. MySpace exemplifies a replaceable platform in that Facebook surpassed it as the major social networking platform. Technological and social mobilizabilities need to complement each other instead of being independent or conflictive. Lately, social and market pressures have forced people and organizations to adopt and use Facebook. This circumstance provides Facebook with the opportunity to combine political mobilizability with technological and social mobilizabilities and to mobilize more actors, including customers. Therefore, the alignment between technological, social, and political mobilizabilities is necessary and positively related to influence emerging and evolving fields in the phenomenon of digital business convergence. Thus, I propose:

- P4:** The combination of political, social, and technological mobilizabilities is positively related to influence emerging and evolving a competitive field in the phenomenon of digital business convergence.

P5: The combination of political, social, and technological mobilizabilities is more competitive than any single mobilizability in influencing on the emergence and evolution of a field in the phenomenon of digital business convergence.

The term “competitive” in propositions 4 and 5 refers to being capable of competing against other fields or mobilizations in order to survive so that this competitive field or mobilization is attractive for others to join in the phenomenon of digital business convergence.

6 Conclusion

In this paper, I raise several issues and challenges in researching the phenomenon of digital business convergence: 1) “how can one analyze the dynamic boundaries of emerging fields?” and “which industries and organizations should be considered?” and 2) “how can organizations be innovative when competing in the phenomenon of digital business convergence when they are conditioned by the regulations, rules, and norms of their traditional industries?”.

By applying the theory of strategic action fields (SAFs), this paper provides a way to investigate the phenomenon of digital business convergence. First, instead of taking a horizontal, vertical, or industry perspective, I adopt the concept of a strategic action field as the fundamental unit in which organizations act to mobilize others across various industries. Second, I investigate three types of mobilizabilities as essential elements that organizations need in order to form and transform fields. Third, I also illustrate how the conditions of pre-existing industries and experiences with other industries affect organizations in leveraging their mobilizabilities.

I apply five of the seven central elements of the theory of SAFs to investigate the phenomenon of digital business convergence: 1) strategic action fields; 2) incumbents, challengers, and government units; 3) the broader field environment; 4) exogenous shocks, field ruptures, and the onset of contention; and 5) social skill. I do not adopt the remaining two elements—episodes of contention and settlement—here because episodes of contention are still unfolding and settlements are unclear due to continued technological innovation. These elements invite further analysis and research.

Using the five central elements from SAF theory, one can elaborate on four aspects of digital business convergence: 1) one can explain what is going on by describing emerging fields in the phenomenon of digital business convergence, 2) one can identify a set of involved actors in the field; 3) one can articulate a set of shared understandings about the “rules” in the field by analyzing the mobilizations of actors, and 4) one can understand the interpretive frame that individual and collective actors bring to make sense of what others are doing by analyzing the conditions of pre-existing industries from which actors come. Therefore, these elements are adequate in adopting the theory of SAFs in order to research the phenomenon of digital business convergence.

By suggesting a conceptual framework (Figure 1), I develop testable propositions. We cannot exactly predict how the phenomenon of digital business convergence evolves, but I suggest a way to investigate and analyze organizations’ strategies and behaviors in the phenomenon of digital business convergence with these testable propositions. Avenues for future research include the testing of these propositions by studying cases in strongly emerged fields and interviewing actors that actively participate in those fields (e.g., van Offenbeek, Boonstra, & Seo, 2013). For example, the development of cloud computing and big data is currently challenging more industry boundaries and opening up more opportunities for actors from various different industries. Nevertheless, studying each case of an emerging field in the phenomenon of digital business convergence will advance our knowledge on this phenomenon.

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About the Authors

DongBack Seo earned her Doctor of Philosophy and Masters of Science in Management Information Systems from the University of Illinois at Chicago. Prior to pursuing the PhD program, she worked as a software engineer in a wireless communications firm and as a small business owner. Her publications include three books, recently published *Evolution and Standardization of Mobile Communications Technology*, as well as a class manual and several chapters. Her papers have been published in many journals (e.g., *European Journal of Information Systems*, *Information and Management*, *Technovation*, *Government Information Quarterly*, *Communications of the Association for Computing Machinery*, etc.) and conference proceedings (e.g., International Conference on Information Systems, etc.). Her research interests include the areas of digital innovation, adoption of IT/IS-enabled services, organizational standards strategy, digital business convergence, and analysis of competitive dynamics in rapidly changing industries. She is currently an associate professor in the Department of Management Information Systems at ChungBuk National University, Republic of Korea.

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